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# UNITED STATES DEPARTMENT OF COMMERCE **Patent and Trademark Office**

COMMISSIONER OF PATENTS AND TRADEMARKS

Washington, D.C. 20231

ATTORNEY DOCKET NO. FIRST NAMED INVENTOR FILING DATE APPLICATION NO. PHA-23.820 SCHOTT 12/16/99 09/464,867

WM01/0724

**EXAMINER** 

HARVEY, D

PAPER NUMBER **ART UNIT** 

2643

DATE MAILED:

07/24/01

Please find below and/or attached an Office communication concerning this application or proceeding.

17.

**Commissioner of Patents and Trademarks** 

Application No.

Applicant(s)

09/464,867

Schott

Office Action Summary Examiner

caminer Dionne Harvev Art Unit **2643** 



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). 1) Responsive to communication(s) filed on 2b) X This action is non-final. 2a) This action is **FINAL**. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213. Disposition of Claims is/are pending in the application. 4) 💢 Claim(s) 1-20 4a) Of the above, claim(s) \_\_\_\_\_\_ is/are withdrawn from consideration. 5) Claim(s) \_\_\_\_\_ 6) X Claim(s) 1-20 is/are rejected. is/are objected to. 7) Claim(s) 8) Claims are subject to restriction and/or election requirement. **Application Papers** 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on \_\_\_\_\_\_ is/are objected to by the Examiner. 11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved. 12)  $\square$  The oath or declaration is objected to by the Examiner. Priority under 35 U.S.C. § 119 13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d). a) All b) Some\* c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). \*See the attached detailed Office action for a list of the certified copies not received. 14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e). Attachment(s) 15) Notice of References Cited (PTO-892) 18) Interview Summary (PTO-413) Paper No(s). 19) Notice of Informal Patent Application (PTO-152) 16) Notice of Draftsperson's Patent Drawing Review (PTO-948) 17) X Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2

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#### **DETAILED ACTION**

### Claim Rejections - 35 U.S.C. § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The Examiner is unclear as to what is meant by the statement "...ratio of an *acoustic mass* of the internal vent to the *acoustic mass* of the external vent is in a range of approximately 3/1 to 7/1", as claimed in claims 1 and 11. This also applies to ratio 15/1 to 30/1, as claimed in claims 6 and 16.

## Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura (JP 4-301998).

Regarding claims 1, 2, 6, 7, 11 and 16,

Tamura teaches a loudspeaker comprising an enclosure(1); transducer(3); internal vent/first means(6); first external vent/second means(7) and second external vent/third means(8). Tamura fails to specifically teach that the ratio of the *acoustic mass* of the internal vent to the second external vent is *approx*. 3/1 to 7/1 or that the ratio of the *acoustic mass* of the first external vent to the second external vent is *approx*. 15/1 to 30/1. However, *based on the Examiner's interpretation of "acoustic mass"*, it is believed that it would have been obvious to one of ordinary skill in the art at the time of the invention to provide vents having different "acoustic masses" i.e., lengths and/or cross sections, depending on the resonant frequency of the system desired. Additionally, it is well known in the art that the port size taken in combination with the size of the subchambers determines the degree of attenuation of the output of acoustic vibrations from the driver unit.

Regarding claims 3, 8, 13 and 18,

Tamura fails to specifically teach that the ratio of the first subchamber to the second subchamber is in a range of approx. 0.3 to 2.5. However, one of ordinary skill in the art at the time of the invention would have easily provided subchambers having different dimensions based on the

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resonant frequency of the driver, so as to achieve the optimal resonance frequency for the enclosure, without undue experimentation.

Regarding claims 4,5,9,10,14,15,19 and 20,

Tamura teaches that the cone(3) has a front surface in communication with a first subchamber(4) and rear surface in communication with the second subchamber(5).

Regarding claims 12 and 17,

Tamura teaches that at least one of the first, second or third means comprises a passive radiating element (see elements 6,7 and 8).

#### Conclusion

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statements for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne Harvey whose telephone number is (703) 305-1111. The examiner can normally be reaches on Monday through Friday from 8:30am to 6:00pm.

Any responses to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC 20231

or faxed to:

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(703) 308-6306, for formal communications for entry

Or:

(703) 308-6296, for informal or draft communications, please label "PROPOSED" or "DRAFT".

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor(Receptionist)

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz, can be reached at (703) 305-4708.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne Harvey whose telephone number is (703) 305-1111.

D.H.

July 16, 2001

SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600